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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
YASUYUKI UNNO)	Examiner: P. Kim
Application No.: 09/523,735)	Group Art Unit: 2851
Filed: March 13, 2000)	
For: PROJECTION OPTICAL SYSTEM)	October 28, 2002
AND PROJECTION EXPOSURE)	
APPARATUS HAVING THE)	
SAME)	

Commissioner for Patents
Washington, D.C. 20231

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INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56 and in accordance with the practice under 37 C.F.R. §§ 1.97 and 1.98, the Examiner's attention is directed to the documents listed on the enclosed PTO-1449 form. Copies of the listed documents are also enclosed.

Japanese Patent Document No. 8-107060 (the '060 document) was previously disclosed during the prosecution of this application, but is being resubmitted with a partial translation thereof. As discussed in the translation, the '060 document discloses an optical system for use in a step-and-repeat type exposure apparatus in which plural lenses are combined in a particular way to minimize birefringence. Applicant asserts that the present invention, as recited in independent claims 11, 18, 27, and 18 (as amended by separate paper filed concurrently herewith) is patentable over the '060 document. Specifically, independent claims 1 and 18 of the present application recite at least one optical element, (distinct from lenses that cause birefringence), which eliminates or substantially eliminates birefringence. Also, independent claim 27 is directed to an optical system for use in a step-

and-scan type exposure apparatus and independent claim 28 is directed to a step-and-scan type exposure apparatus, which include such optical elements.


European patent document No. WO 98/43135 (the '135 document) corresponds to the Japanese patent document No. 10-270351 (the '351 document). The '135 document and the '351 document disclose the use of different types of synthetic quartz glass materials with different birefringence amounts. Neither of these documents, however, teaches that birefringence caused by either a plurality of lenses (as recited in independent claims 11 and 18) or a plurality of optical elements (as recited in independent claims 27 and 28) is eliminated or substantially eliminated. As such, Applicant asserts that the present invention, as recited in the independent claims, is patentable over these citations as well.

This Information Disclosure Statement is being filed before the issuance of a first Office Action on the merits. Therefore, no fee under 37 C.F.R. 1.97(c)(2) is believed due. Nevertheless, the Commissioner may charge Deposit Account No. 06-1205, should any fee be due for filing this paper.

Applicant requests that the above information be considered by the Examiner and that a copy of the enclosed PTO-1449 form be initialed and returned indicating that such information has been considered.

Applicant's undersigned attorney may be reached in our Washington D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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